Hemerologium Hermelicum.

OR A

MERCURIAL CALENDER

OF

The Diurnall Motions and Configurations of all the Planets, for the yeer of our Lord 1655.

Being since the Correction of the Roman Calender, By *P. Gregory*, 73. yeares, And the third after Bissextile or Leap-year,

Containing Astronomicall Calculations of Eclipses, and Quarterly Revolutions, with probable Conjectures of the Weather, and many other things both useful & necessary.

Rectified to the Latitude of 52. degrees, yet may indifferently be referred unto any place in great *Britain* and *Ireland*.

By *John Smith* Philomathist.

Astra regunt homines, sed regit astra deus.

LONDON,
Printed by *Jane Bell* for the Company of STATIONERS.

The Julian Accompt.	Vulgar Notes.	The Gregorian Accompt.
8	Golden Number	3
12	Circle of the Sun	12
☉	Dominical Letter	☾
8		8
3	Epact	23
February 11	Septuagesima	24 January
February 28	Dies Cinerum	3 March
April 15	Easter day	18 April.
June 3	Whitsunday	6 June.
Decemb. 2	Advent Sunday	28 November

The Terms of the Law.

Hillary Term begins January 23. ends Febr. 12 and hath these 4 Returns,

1 Octab. Hillar. } { 3 Craft. Purif.
2 Quind. Hillar. } { 4 Octab. Purif.

Easter Term begins May 2. ends May 28. having 5 Returnes,

1 Quind. Pasch. } { 3 Mens. Pasch.
2 Tres Pasch, } { 4 Quinq. Pasch.
5 Craft. Ascens.

Trinity Term begins June 15. ends July 4 and hath 4 Returnes,

1 Craf. Trin. } { 2 Quind. Trin.
2 Octab. Trin. } { 3 Tres. Trin.

Michaelmas Term begins October 23. ends November 27. and hath 6 Returnes.

1 Tres. Mich. } { 4 Craft. Mart.
2 Mens. Mich. } { 5 Octab Mart.
3 Craft. Mich } { 6 Quind. Mart.

The parts of mans body as they are governed by the signs Zodiacall.

♈ The head and face.

♉ Neck and throat.

♊ Armes and shoulders.

♋ Breast stomach & ribs.

♌ Heart and back.

♍ Bowels and Belly.

♎ Reins and Loyns.

♏ Secrets amd members.

♐ Thighs.

♑ Knees.

♒ Legs.

♓ Pisces the feet.

Manilius lib. 5. Cap. 4.

AUrata Princeps Aries in vellere fulgens,
Respicit admirans adversum surgere Taurum,
Summisso vultu Geminos & fronte vocantem,
Quos sequitur Cancer cancrum Leo, Virgo, Leonem,
Aequato cum Libra die cum tempore nostris,
Asterabit ardenti fulgemem Scorpion astro,
In cujus Caudam contentum dirigit arcum,
Mixtus equo volucrem missurus jamq; Sagittam,
Tum venit Augusto Capricornus sydere flexus,
Post hunc insignem diffundit Aquarius urnam,
Piscibus assuetas avide subeuntibus aquas,
Quos Aries Tangit claudentes ultima signa.

Thus Englished.

GLittering in's golden fleece, Prince Aries
Looks back, admiring that the Bull he sees
Against him rise, who with low front and face,
Calls to the Ge nini to move apace;
These Cancer follows, Loyall Leo then
Pursues the Crab; Virgo (no Curtizen)

Chases the Lyon, then (æquating night
With day) mines Libra drawes the Scorpion bright
With his inflamed glistering Starre, whose taile ☋
The Centaure doth with bow and shaft assaile;
Then with his narrow Constellation, he
Wrecall the Goat comes with a bended knee;
And after him Aquarius who powers
His ambrosed Lavour forth in golden showers
Upon the Fishes whose desir'd content
Is sporting in the watry Element;
These finishing the number of the Signes,
Aries his Head unto the Tayle conjoynes.

Names of the Planets and Cities.

♄ φαίνων, Saturne.	♀ φώσφορος, Venus.
♃ φαέθων, Jupiter.	☿ στίλβων, Mercury.
♂ πυρόεις, Mars.	☽ σελήνη, the Moon.
☉ ἥλιος, Sol.	☊ Dragons head.

☋ Dragons Taile.

The Aspects Old and New.

Charact.	Names of Aspects.	Dist. of sig.	& deg.	Severall φάσεις of the Moon.
☌	Conjunction	0	0	*Novilunium*, or the
Sg	Semisextile	1	0	New Moon.
✱	Sextile	2	0	*Corniculata*, or the hor-
⚺	Quintile	2	12	ned Moon.
□	Quartile	3	0	*Semiplena*, Moon half
Td	Tridecile	3	18	full of light.
△	Trine	4	0	*Gibbosa*, or the Moon
Bq	Biquintile	4	24	three parts light.
☍	Opposition	6	0	*Plenilunium*, ful moon.

January hath xxxi. dayes.

The year begins but coldly, some [illegible] ens [illegible]
Are big of wind, and bring forth frigid strainer;
Their slabby fancies like the winter weather,
Produce a shower of rain and snow together;
We laugh to lick the sweet, why should we lower
Sometimes to taste a little that is sowre?

1	a		♓	3	2	♈	2[illegible]	Cloudy
2	b	♄ [illegible] ♍		15	22		2[illegible]	moist air
3	c	□ ☽ & ☿		28	23		25	snowy an
4	d	△ ♃ & ♂	♈	11	24		2[illegible]	cold: warm
5	e	♃ 20. 3[illegible] ♓		25	25		28	& very tem
6	f		♉	8	26		29	perate, the
7	g	1 sun. aft Ep		2	27		30	season of the
8	a	✱ ♃ & ♀	♊	7	28		31	year consi-
9	b	☽ Periodon		22	29		32	dred; clou
10	c	✱ ♂ & ♀	♋	7	♒		33	dy again &
11	d	☿ in elon. max		2	1		3[illegible]	showers pe
12	e	☽ with ♌	♌	7	2		36	hap, snow
13	f	△ ♄ & ☿		22	3		37	& sleet, frost
14		2 sun. aft Ep.	♍	6	4		38	& cold, ye
15	a	♂ 27. 5 ♌		2	5		39	dry & clea
16	b	Marcellus	♎	3	6		4[illegible]	wholesome
17	c	Antonius		17	7		41	nipping air
18	d	□ ♀ & ☽		25	8		42	a lit windy
19	e	✱ ☽ & ☿	♏	12	9		4[illegible]	cloudy an
20	f	☽ with ♂		2[illegible]	10		4[illegible]	moist. & [illegible]
21		3 sun. aft. Ep.	♐	6	11		4[illegible]	may cold
22	a	♀ [illegible] 47. ♒		1[illegible]	12		4[illegible]	rain or snow
23	b			25	13		4[illegible]	very wind
24	c	☽ Apogeon	♑	11	14		47	cold, a frost
25	d	✱ ♃ & ☿		23	15		4[illegible]	y turbulent
26	e	☽ with ♀	♒	5	16		49	& frig dwe
27	f	☿ 27. 21 ♑		18	17		50	thet; yet sit
28		4 sun. aft. Ep	♓	0	18		51	tle snow a
29	a	♂ ♄ & ☽		13	19		51	bout this
30	b	☽ with ♃		2[illegible]	20		5[illegible]	last part o
31	c	△ ☽ & ♂	♈	9	21		53	the month

First Quar
er the 5
day, 4 min
last 1 after
noon.

Full moon
the 12 day,
[illegible]7 min pa.
[illegible] in the
morning.

last quar-
ter the 19
day, 51 mi.
pa. 7 in the
morning.

New Moon
the 25 day
[illegible]6 min pa.
noon.

February hath xxviii. dayes.

Whatever from the Stars great influence
We juſtly attribute by providence,
May be controld, and we may not be ſaid
To ſpeak amiſs, becauſe a plague is ſtaid,
The doctrine of divine decrees diſſents,
From natures more uncertaine Rudiments.

		Feſtival Aſpects and Motions.	Moon place	Suns place		Changes of the Aire.	Lunations
1	D	□ ♄ & ♂	♈ 22	12	♓ 54	Windy &	
2	e	Candlemas	♉ 5	23	54	ſuden ſhow	
3	f	♂ ☉ & ♀	19	24	55	ers, warme	First Quar
4	G	ſ ſun. aſt. Epi.	♊ 3	25	56	& fair air,	ter the 3
5	a	✶ ♂ & ♀	17	26	56	more clou-	day, 37 mi.
6	b	☽ Perigeon	♋ 2	27	57	dy & cold	paſt 10 at
7	c	♄ 7. 16. ♍	16	28	57	raine, and	night.
8	d	△ ☿ & ☽	♌ 1	29	57	then more	
9	e	☽ with ♑	15	30	0	temperate,	
10	f	☽ with ♄	3	♓	58	calm ſerene	Full moon
11	G	Septuageſima	♍ 15	1	58	milde wea	the 10 day,
12	A	Term ends	28	2	59	ther, ſnow	1 min. pa.
13	b	♂ ♄ & ♀	♎ 11	3	59	or very	4 in the
14	c	Valentine	25	4	59	cold raine,	afternoon.
15	d	♂ ☉ & ♄	♏ 7	5	0	a very great	
16	e	♄ Occidentall	26	6	0	ſnow with	Laſt quar-
17	f	☿ 29. 45 ♓	♐ 2	7	0	hard & cold	ter the 18
18	G	Sexageſima	14	8	0	froſts & ar	day, 23 mi.
19	a	☽ Apogeon	26	9	0	length mor	pa. 3 in the
20	b	♂ ♄ & ♀	♑ 8	10	0	windy, yet	morning.
21	c	♂ 19. 10 ♐	19	11	0	more ſnow	
22	d	✶ ☽ & ☿	♒ 1	12	0	& cold air,	New Moon
23	e	☽ with ♌	14	13	1	but now	the 26 day
24	f	Matthias	26	14	1	□ ♂ & ♀	13 min pa
25	G	Quinquageſ.	♓ 9	15	0	remiſſion of	4. more.
26	A	♂ ☉ & ♀	22	16	0	cold by	
27	b	♀ 24. 49. ♓	♈ 5	18	0	winds that	
28	c	Aſhwednesd.	19	19	0	bring rain.	

March hath xxxi. dayes.

The proverb tells us when this moneth the Ram
Is entred by the Royall Sun, a Lambe
Concludes the moneth; though like a furious Lyon
The moneth began, we hope the Lambe of Sion
Will cause the boistrous floods of Wars to cease,
And bring us plenty of Celestiall peace.

1	☽	☐ ♂ & ♀	♉	2	20	♓	55	Cold raine	
2	e	♄ ſ. 26. ♍		10	21		55	if not ſome	
3		✶ ☽ & ♀		3	22		55	ſnow and	
4	n	☉ ſun. in Lent.	♊	41	23		53	high winds	Firſt quar
5		✶ ♀ & ♀		18	24		58	lofty and	ter the 5
6	b	☌ ♅ & ♀	♋	12	25		53	turbulent	day, 26 mi
7	e	☌ ♅ & ♀		25	26		52	winds with	paſt 6 in
8	d	☐ ☉ & ♂	♌	10	27		57	wet and	h. morn.
9	e	☽ with ♄		24	28		56	great Co-	
10	f	♅ 4. 46. ♈	♍	9	29		52	ruſcations,	
11		☉ ſun in Leat		22	♈		55	March now	
12	a	♇ ♀ & ☽	♎	6	1		54	ſhewing	Full moon
13	b	Euphraſus		19	2		53	himſelfe a	the 12 day
14	c	✶ ♄ & ☽	♏	3	3		53	Lyon.	8 min. paſt
15	d	♂ 1. 50. ♍		15	4		52	Calm & ſe-	1 in morn.
16	e	☌ ☉ & ♅		23	5		51	rene blaſts	
17	f	♅ Orientall	♐	10	6		50	of very	
18		☉ ſun in Lent.		12	7		49	wholſome	Laſt quar
19	a	△ ♄ & ♂	♑	4	8		48	winds and	ter the 15
20	b	☽ Apogeon		15	9		47	ſome rain,	day, 29 mi
21	c	☐ ♀ & ☽		27	10		47	yet but gen	paſt 11 a
22	d	♀ 23. 22. ♈	♒	9	11		46	tl: & warm	night.
23	e	♀ in elongati		21	12		45	drops, and	
24	f	one max.	♓	4	13		43	then more	
25		Ladyday.		17	14		42	dry winds,	New moon
26	a	△ ♄ & ♀	♈	1	15		41	yet at	the 27 day
27	b	☉ enters ♉		14	16		40	length raine	56 mi. paſt
28	c	☿ with ♀		26	17		39	windy and	5 aftern.
29	d	☐ ♅ & ♂	♉	8	18		38	wet wea-	
30	e	△ ♄ & ♀		21	19		36	ther ende	
31		♀ 6. 21. ♉	♊	10	20		35	this Month	

A dripping Aprill some have said with flowers;
Bedecks the pleasant May; if so, the showers
That fall this month, may fill the fields with store
Of grasse, and make the Rivers to run ore
The flowery banks, however this we know know,
What the most High will have, it must be so.

1		☉ sun in Lent.	♊	25	21	♈ 34	Store of	
2	a	☌ ☿ & ♀	♋	5	22	32	winds and	
3	b	♄ 3. 25 ♍		23	23	31	wet, both	First Quar
4	c	☽ with ♆	♌	7	24	29	ushers in	ter the 3
5	d	☊☊ ♅ & ♀		21	25	28	and still	day, 48 mi.
6	e	☽ with ♄	♍	5	26	26	leads on	after noon.
7	f	△ ♂ & ☿		18	27	25	this month	
8	g	All Sunday	♎	2	28	23	yet more	
9	a	♅ 11. 58 ♈		15	29	21	showers &	
10	b	△ ♄ & ♀		28	♂	20	windy wet	Full moon
11	c	☌ ☉ & ♀	♏	11	1	18	blustering,	the 19 day
12	d	☿ ☌ ientrall		23	2	15	yet season-	46 min p.
13	e	△ ☉ & ♄	♐	6	3	16	able & rai-	4 afterno.
14	f	☊ Apogeon		18	4	13	ny weathers	
15	g	After day		30	5	11	there is not	
16	a	☽ with ♂	♑	12	6	9	like to be	
17	b	♂ 18. 41. ♉		23	7	7	much	
18	c	☽ with ♌	♒	5	8	5	change of air	Last Quar-
19	d	✶ ♅ & ☽		17	9	4	all Aprill,	ter the 18
20	e	☌ ♄ & ☽		29	10	2	for proba-	day, 23 mi.
21	f	☿ enters ♊	♓	12	11	0	bly the	past 6 after
22		☉ sun aft. East.		25	11	57	wholemon.	noone.
23	a	♄ Stationary	♈	8	12	55	will gene-	
24	b	□ ♄ & ☿		22	13	53	rally be wet	
25	c	Mark Vant.	♉	6	14	51	& windy, &	New moon
26	d	△ ♂ & ☽		21	15	49	so I think	the 26 day
27	e	☿ 26. 26 ♈	♊	5	16	47	the Country	30 mi. past
28	f	☽ Perigeon		20	17	45	man would	3 morning
29	g	☉ sun of East.	♋	5	18	42	have it, let	
30	a	□ ☿ & ☽		19	19	40	him blesse	
							God for it,	

May hath xxxi. dayes.

Against reason this is, if we ma
Credit the Rules that some presume to say,
Are certaine as the changes of the aire
Which sometimes bring foul weather, sometimes fair;
We wish our fickle and unconstant minds
Were better settled then this month the winds.

1	b	May day	♌	4	20 ♉	38	I am much	
2	c	Term begins		18	21	36	mistaken if	First Quar
3	d	♃ with ♄	♍	1	22	33	the month	ter the 2
4	e	♄ 3. 14 ♍		15	23	31	begins not	day 31 mi.
5	f	✱ ♃ & ♀		28	24	29	with a fair	pass in the
6	g	3 sun aft East	♎	11	25	26	clear aire,	afternoon.
7	a	△ ☉ & ♂		24	26	24	now some	
8	b	♃ 18. 20 ♈	♏	7	27	21	great & dry	
9	b	△ ♄ & ☿		20	28	19	winds and	
10	d	♀ in elongat.	♐	2	29	16	perhaps a	Full moon
11	e	maxima.		14	♊	14	little wet	the 10 day
12	f	☽ Apogeon		26	1	12	withal, now	21 mi. past
13	g	4 sun aft. East.	♑	8	2	9	clouds and	6 morning
14	a	□ ☉ & ♄		20	3	6	great show-	
15	b	☽ with ♌	♒	2	4	4	ers water	
16	c	✱ ♃ & ☽		13	5	1	the earth	
17	d	♂ enters ♒		25	5	59	and make	Last quar
18	e	✱ ♄ & ♀	♓	8	6	56	it fruitfull,	ter the 1
19	f	✱ ♄ & ♂		20	7	53	let us be	day, 39 m
20	g	Rogation	♈	3	8	51	thankful:	past 10 in
21	a	☽ with ♃		16	9	48	brave and	the morn
22	b	□ ♂ & ☽		30	10	45	faire sun-	
23	d	☽ with ☿	♉	14	11	42	shine, fine	
24	d	Ascension day		29	12	40	growing	
25	e	♀ 11. 31 ♋	♊	14	13	37	weather,	New moon
26	f	☽ Perigeon		29	14	34	and then	the 25 day
27	g	5 sun aft. East.	♋	14	15	31	some winds	28 min be-
28	a	Term ends		29	16	27	and a little	fore noon.
29	b	△ ♂ & ☿	♌	14	17	26	wet ends	
30	c	□ ♄ & ☿		28	18	23	this month.	
31	d	♀ 3. 15 ♊	♍	12	19	20		

June hath xxx. dayes.

Long since it is concluded, that in June
An Aprill Cuckoe is quite out of tune;
Why heare we then a tongue that drencht in Ale,
Alwaies rehearsing still the selfe same tale?
Wee'l clip his wings, and if we can but find
A way, wee'l make him vary like the wind.

1	c	♄ 4. 22. ♍	♍	25	20	♎ 17	A gallant		
2	d	△ ☿ & ☽	♏	8	21	14	season this	First Quar-	
3		✠ Whitsunday.		21	22	12	very fair	ter the 1.	
4	a	□ ♃ & ♀	♐	3	23	9	and clear,	day, 51 mi.	
5	b	✶ ☉ & ♃		16	24	6	dry and	past 12 in the	
6	c	✶ ♂ & ☽		18	25	3	warm aire,	morning.	
7	d	♃ 24. 16. ♈	♑	11	26	0	but what		
8	e	☽ Apogeon.		23	27	57	followes,	Full moon	
9	f	✶ ♃ & ☿	♒	5	28	54	some winds	the 8 day,	
10		Trinity sund.		17	29	51	that stir up	at 9 at	
11	a	☌ ♂ & ♀		28	♓	48	warm and	night.	
12	b	☌ ☉ & ☿	♒	10	1	45	wholesome		
13	c	☌ ♂ Retrograd.		22	2	43	showers,	Last Quar-	
14	d	✶ ♄ & ☿	♓	4	3	40	dry now	ter the 16	
15	e	Term begins		16	4	37	againe and	day, 54 mi	
16	f	☌ 3. 20. ♒		29	5	34	windy, and	past 11 at	
17		☿ sun. aft. Tr.	♈	12	6	31	then a little	night.	
18	a	✶ ☉ & ♄		25	7	28	wet and		
19	b	Gervasius	♉	9	8	25	dirty, yet		
20	c	△ ♂ & ☽		23	9	22	Phœbus	Newmoon	
21	d	✶ ♀ & ☽	♊	7	10	19	now shines	the 23 day	
22	e	✶ ♃ & ☽		21	11	16	again upon	35 mi. past	
23	f	☽ Perigeon	♋	7	12	13	us, & makes	2 in the	
24		✠ John Baptist		23	12	10	it faire,	afternoon.	
25	g	□ ♃ & ☿	♌	8	13	7	windy and		
26	h	☽ with ♀		23	14	4	stormy,		
27	c	☌ ♂ & ☿	♍	7	15	1	dry and	First quar-	
28	d	☿ 21. 58 ♌		21	15	58	hot seer-	ter the 30	
29	e	Peter Apost.	♎	5	16	55	ching and	day, 4 min.	
30	f	☿ 6. 23. ♌		18	17	53	warm aire,	past noon.	

July hath xxxi. dayes.

Some say the heavenly bodies make a clatter,
As if they merry were what ere's the matter.
Methinkes when those inanimates agree
So well, we should not wrangle, were but we
More rational; yet still 'tis hoped some
Will bring our lone desires a welcome home.

1	☾	☽ lun. at 1 11.	♍	1	10	50	The aire is	
2	a	♄ 6. 53. ♍		14	19	47	very faire	
3	o	△ ♃ & ☿		26	20	44	and clear,	
4	c	Termenda	♐	8	21	41	serene and	Full Moon the 8 day, 22 min. afternoon.
5	d	A shelme		20	22	39	warm & per	
6	e	△ ♄ & ☽	♑	2	23	36	haps some	
7	f	☽ Apogeon		14	24	33	think what	
8	g	4 sun. aft Tri.		15	25	30	the wether	
9	a	♃ 28. 36. ♈	♒	7	26	27	is seasona	
10	b	☌ ♃ & ♂		19	27	25	thunder &	Last Quarter the 16 day 56 mi. past 9 in the morning.
11	c	♂ ☉ & ♂	♓	1	28	22	lightning,	
12	d	□ ☉ & ♃		13	29	19	with very	
13	e	♂ ♄ & ☿		26	♏	16	violent &	
14	f	♂ Occidental	♈	8	1	14	great show-	
15	g	☽ sun aft. Tri.		21	2	11	ers of raine	
16	a	△ ♃ & ☿	♉	4	3	8	& then hot	
17	b	♂ 26. 53. ♈		18	4	5	& dry wind	
18	c	□ ☿ & ☽	♊	2	5	3	bluster and	New Moon the 23day, 36 mi. past 1 in the morning.
19	d	□ ♀ & ☿		16	6	0	blow the	
20	e	☽ Perigeon	♋	1	6	57	dust about,	
21	f	☿ in digr. max		16	7	55	now again	
22	g	☽ sun. aft. Tri.	♌	1	8	52	gentle and	
23	a	☿ 20. 58. ♍		13	9	49	very warm	
24	b	☽ with ♄	♍	1	10	47	seasonable	
25	c	James Apost.		13	11	44	change of	First Quarter the 29 day, 52 mi. past 11 at night.
26	d	♂ ♄ & ☿		30	12	42	air, & still	
27	e	△ ♂ & ☿	♎	14	13	39	dry & hot,	
28	f	☌ ☽ & ♃		27	14	37	with some	
29	g	☽ sun. aft. Tri.	♍	10	15	34	coole blast,	
30	a	✶ ♂ & ☽		22	16	32	yet dry fi	
31	b	☿ 12. 14. ♍	♐	5	17	30	warm winn	

August hath xxxi dayes.

The Country Farmer brings the harvest Corne,
Into the bowels of his two leav'd Barne:
The weathers handsome, yet the various aire
Is sometimes foul that was but now so faire,
Be it as 'twill be, sure I am that he
Who is contented, saves, let it so be.

1	e	♄ 10. 11 ♍	♐	1	18	♌ 27	A cleare &	
2	d	△ ☽ & ♀		2	19	25	faire very	
3	e	△ ♄ & ☽	♑	10	20	22	promising	
4	f	☽ Apogeon		22	21	20	beginning,	
5		8 sun. aft. Tri	♒	4	22	18	this month	Full moon
6	h	☽ with ♌		16	23	15	hath a very	the 7 day,
7	b	♃ 0. 10 ♉		24	24	13	good har-	48 mi. past
8	e	♂ ♄ & ☽	♓	10	25	11	vest time, &	3 at morn.
9	d	✱ ☽ & ♂		23	26	9	then some	
10	e	♂ ♄ & ☿	♈	5	27	7	winds blow	
11	f	♂ Direct.		18	28	4	up clouds &	
12		9 sun aft. Tri.	♉	1	29	2	caus a show	Last quar
13	a	△ ☉ & ♃		14	29	59	er of raine:	ter the 14
14	b	♃ Stationary		28	♍	58	brave and	day, 2 min
15	c	♂ 23. 3 ♑	♊	12	1	56	fair air, gal-	past 6 af-
16	d	Rochius		26	2	54	lant dry &	ternoon,
17	e	☽ Perigeon	♋	10	3	52	warm w. yet	
18	f	♂ ☉ & ☿		25	4	50	wind and	
19		0 sun. aft. Tri.	♌	9	5	48	great drop.	New moon
20	a	☽ with ☿		24	6	46	yea raine &	the 21 day
21	b	□ ♂ & ♀	♍	9	7	44	wet doth	44 mi. past
22	c	△ ♂ & ☽		24	8	43	now visite	9 morn
23	d	Zacheus	♎	8	9	41	the earth:	
24	e			22	10	39	then fair &	
25	f	☿ 27. 24 ♎	♏	5	11	37	calm, at the	First quar-
26		11 sun aft Tri.		18	12	36	last some	ter the 28
27	a	♂ ☉ & ♄	♐	1	13	34	mixture of	day. 3 min
28	b	♂ ♃ & ☿		13	14	32	warm wet	past 3 af-
29	c	△ ♃ & ☿		25	15	31	winds, and	ter noone
30	d	△ ☽ & ♃	♑	7	16	29	some rain	
31	e	☿ 0. 26 ♍		19	17	27	concludes.	

The Season ſmiles, and ſweetly ſeeks to bring
Us to the glory of an after Spring:
We joy to ſee how green teſſe ſpreads the banks,
Yet ſeldome higher look to render thanks;
Were God as little mindfull of us, as we are
Of him, we never ſhould be out o'th ſnare.

1	☉	♄ 14. 2 ♍	♒	1	18	♍ 26	This month	
2		12 ſun aft. Tri.		12	19	24	begins fair.	
3	a	✶ ♃ & ☽		24	20	23	at length	Full moon
4	b	☿ in Elong-	♓	7	21	22	clouds and	the 5 day,
5	c	gatione max.		19	22	20	darkneſs	32 mi. paſt
6	d	Magnus	♈	2	23	19	ſurrounds	6 in the af-
7	e	♃ 28. 53 ♈		15	24	18	us, & then	ternoon.
8	f	☽ with ♄		28	25	16	followes	
9		13 ſun aft. Tri.	♉	11	26	15	wind & wet	
10	a	♀ in Dig. max		25	27	14	boiſtrous	Laſt Quar-
11	b	□ ♃ & ♂	♊	8	28	13	ſtorms of	ter the 1[illegible]
12	c	△ ☉ & ♂		22	29	1	wind and	day, 4 min
13	d	☌ ♄ & ☿	♋	6	♎	10	rain in ☽	pa. 1 in the
14	e	✶ ♄ & ♀		20	1	9	Perigeon	morning.
15	f	✶ ♀ & ☿	♌	4	2	8	great plen-	
16		14 ſun aft. Tri.		19	3	7	ty, but ſoon	
17	a	Lampertus	♍	3	4	6	after a lit-	
18	b	☽ with ♄		18	5	5	tle calmer	Newmoon
19	c	♂ [illegible] 50 ♒	♎	2	6	4	and milder	the 19 day
20	d	[illegible]		16	7	4	air ſucceeds	32 mi. paſt
21	e			30	8	3	warmwinds	7 in the
22	f	△ ♂ & ☿	♏	13	9	2	probably	afternoon
23		15 ſun aft. Tri		26	10	1	hail, at	
24	a	Samuel	♐	9	11	1	length a	
25	b	♀ 27. 20 ♏		21	12	0	ſtorm of	First Quar-
26	c	Cyprianus	♑	[illegible]	12	59	wind & rain	ter the 27
27	d	☿ 11. 38 ♎		15	13	59	blows this	day, 42 mi
28	e	☽ Apogæon		27	14	58	month to	paſt 9 in the
29	f	[illegible]	♒	8	15	58	its end and	morning.
30		15 ſun aft. Tri.		20	16	57	period.	

October hath xxxi. dayes.

Some say the swelling Germane may present
This moneth October; for the martial Tent,
Is like the winter weather, but say some,
'Tis cause their drinking harvest now comes home;
Be how it will be, this we may be sure,
A drunken *Dutchman* thinks himselfe secure.

1	a	☐ ☿ & ☽	♓	2	17	♎ 57	some shew		
2	b	Leodegerius		15	18	56	of darke		
3	c	♄ 17. 54. ♍		27	19	56	clouds now	Full moon	
4	d	✱ ☽ ☌ ♂	♈	10	20	56	appears, &	the 5 day	
5	e	♌ ♅ & ☿		24	21	56	great winds	40 min.	
6	f	△ ♄ & ☽	♉	7	22	55	foll. which	past 8 in	
7	g	17 sun aſ. Tri.		21	23	55	may bring	the morn.	
8	a	♌ ☉ & ♅	♊	5	24	55	a fair and		
9	b	♅ Occidentall		19	25	55	very clear		
10	c	☽ Perigeon	♋	3	26	55	serene aire.	Laſt Quar-	
11	d	✱ ♄ & ☽		17	27	55	the middle	ter the 12	
12	e	☽ with ♍	♌	1	28	55	of this	day, 7 min.	
13	f	♅ 24. 31. ♈		15	29	55	moneth is	pa. 8 in the	
14	g	18 sun aſt. Tr.		29	♍	54	very like	morn.	
15	a	☽ with ♄	♍	15	1	54	to be calm		
16	b	Gallus		27	2	55	and milde		
17	c	✱ ☽ & ☿	♎	11	3	55	gentle and		
18	d	Luke Evang.		25	4	55	fair; now	New moon	
19	e	☐ ♂ & ☿	♍	8	5	55	winds and	the 19 day	
20	f	✱ ♄ & ☿		21	6	55	probably	50 mi. past	
21	g	19 sun aſt. Tr.	♐	4	7	55	soon: ſuden	7 morning	
22	a	☽ with ☿		17	8	55	ſhowers do	△	
23	b	☽ Apogeon		29	9	55	vitire us,		
24	c	☽ with ♌	♏	11	10	56	Term beg.	First Quar	
25	d	♃ 20. 39. ♒		23	11	57	but neer	ter the 27	
26	e	Amandus	♒	5	12	57	the end a	day, 29 mi.	
27	f	☿ 14. 33. ♐		16	13	58	boiſterous	pa. 6 in the	
28	g	Simon & Jude		28	14	58	winds bring	morn.	
29	a	✱ ♅ & ♃	♓	10	15	59	ſhowers, ſo		
30	b	☿ Retrograde.		23	16	59	& ſo ends		
31	c	☿ 5. 20. ♐	♈	5	18	70	the moneth.		

November hath xxx. dayes.

Hells powder plot by Romes devise invented,
This moneths fifth day was wondrously prevented;
But ancient mercies now grow out of date,
That never minded them, nor these of late,
Let good men therefore with the greater praise,
Preserve their memory in oblivions dayes.

1	b	Omnia	♈	18	19	♉	Its cold &	
2	ω	Animarum	♉	2	20	1	frosty, shall	
3	f	✶ ☉ & ♄		16	21	2	I say snowy	Full moon
4		21 sun. aft. Tr.	♊	1	22	2	weather,	the 3 day,
5	a	Powder Trea		14	23	3	now winds	23 mi. past
6	b	♂ ♀ & ☿		29	24	4	blow cold,	9 at night.
7	b	☽ Perigeon	♋	13	25	4	cold raine,	
8	b	☽ with ♍		28	26	5	or snow	
9	c	♄ 21. 26. ♏	♌	12	27	6	visits us,	Last quar-
10	d	♂ ♂ & ☽		26	28	7	and then	ter the 10
11	e	22 sun af. Tri	♍	10	29	8	som stormy	day, 57 m.
12	a	△ ♃ & ☿		24	♐	9	& flatuous	past 3 af-
13	b	□ ♄ & ♅	♎	7	1	10	guests of	ter noon.
14	c	♃ 21. 1. ♈		21	2	11	dry cold	
15	d	Leopoldus	♏	4	3	11	winds, af-	
16	e	□ ♂ & ☉		17	4	12	ter this,	New moon
17	f	☽ with ♀		30	5	13	raine fol-	the 17 day
18	g	23 sun af. Tri	♐	33	6	14	lows, & so	12 min. p.
19	a	♂ ☉ & ♀		35	7	15	there is som	3 afterno.
20	b	□ ♂ & ♀	♑	7	8	16	rem. thō of	
21	b	☽ with ♑		19	9	17	cold, & its	
22	d	☽ Apogeon.	♒	1	10	18	now a little	
23	e	♀ 4. 37. ♂		12	11	19	warmer,	
24	f	♂ 9. 33. ♓		24	12	20	but tis now	First Quar
25	g	24 sun. af. Tri.	♓	6	13	22	winter & if	ter the 26
26	a	Conradius		18	14	23	a cold slab-	day 27 mi.
27	b	Term end.	♈	1	15	24	by air doth	past 3 in the
28	c	☽ with ♃		13	16	25	chil us; the	morning.
29	d	♅ 22. 2. ♂		26	17	26	fire then	
30	e	Andrew Ap.	♉	10	18	28	must warm	
							us, so I end.	

December hath xxxi. dayes

This Moneth concludes it selfe, and ends the yeare
Together, whether we may hope or feare,
Danger the object of the one, or good
The others object will be understood
By what's the sequell of those Consultations
At this time plotted in the forraigne Nations.

1	f	△ ☉ & ♃	♉	24	19	♐ 29	It begins	
2	g	Advent. Ind.	♊	8	20	30	fair & clear	Full Moon
3	a	□ ♄ & ☿		23	21	31	& then it is	the 3 day,
4	b	☌ ☉ & ☿	♋	8	22	32	windy cold	25 min. past
5	c	□ ☉ & ♄		23	23	34	and some	9 in the
6	d	△ ♃ & ☿	♌	8	24	35	snow covers	morning.
7	e	☽ Perigæon		22	25	36	the earth's	
8	f	♄ 22. 56 ♍	♍	7	26	37	surface;	
9	g	1 sun. Advent		20	7	39	what else	Last Quar-
10	a	♀ Direct	♎	4	28	40	can be now	ter the 10
11	b	Damascus		18	20	41	expected if	day 40 mi.
12	c	♃ 20. 22 ♈	♏	1	♑	42	the season	past in the
13	d	△ ♂ & ♄		14	1	44	be conside-	morning.
14	e	☍ ♄ & ♂		26	2	45	red. Snowy	
15	f	☽ with ☿	♐	9	3	46	& such like	
16	g	2 sun. Advent.		21	4	48	cloudy air	
17	a	♂ 21. 52 ♓	♑	3	5	49	now a little	New Moon
18	b	☿ with ♌		15	6	50	warmer ge-	the 17 day,
19	c	☽ Apogæon		27	7	52	nerally, the	2 mi. past 5
20	d	♀ 1. 43 ♐	♒	9	8	53	air is some	afternoon
21	e	Thomas Apo		21	9	54	what dark	
22	f	□ ♀ & ☿	♓	3	10	56	and cloudy	
23	g	3 sun. Advent.		15	11	58	but not ve-	
24	a	△ ♃ & ☿		27	12	58	ry frosty.	
25	b	Nat. Dom.	♈	9	13	59	Winds and	First Quar-
26	c	Stephen		22	15	1	frost, and	ter the 25
27	d	John Evang.	♉	5	16	2	then some	day, 2 mi.
28	e	Innocentis		18	17	3	cold rain or	past 10 af-
29	f	✶ ♂ & ☽	♊	2	18	4	snow con-	ternoon.
30	g	4 sun. Advent.		16	19	6	cludes this	
31	a	☿ 27. 51. ♐	♋	1	20	7	present year	

SMITH, 1655.

A PROGNOSTICATION

For the

Year of our Lord, 1655.

The Third after Bissextile,

Containing a brief description of the four Quarters of the Year; With the Calculation of all the Eclipses that happen this year within and without our Horizon.

With General Types of all Eclipses Solar and Lunar, together with Rules to know what they are, and when and how they do happen: And an account of many other things necessary.

Calculated to the elevation of the Pole Arctick 52 degrees.

By JOHN SMITH, *Astrophilest.*

Cæli enarrant gloriam Dei

London, Printed by *E. Alsop*, for the Company of Stationers. 1655.

The Radices of the middle motion of the Planets, January 1, 1655. at noon, for the Latitude of 52 grad.

	S	G	M	ll.
Progressio prima Stellæ arietis a vero verno Equinoctio	0	28	22	51
Longitudo media solis	9	20	52	22
Aphelion solis.	3	06	38	56
Longitudo media Saturni	4	29	6	46
Aphelion Saturni	8	27	12	16
Nodus ascendens Saturni	3	21	5	3
Longitudo media Jovis	0	0	21	58
Apogeum Jovis	6	8	48	25
Nodus ascendens Jovis	3	5	37	42
Longitudo media Martis	6	13	30	43
Apogæum Martis	5	0	5	37
Nodus ascendens Martis	1	17	22	44
Longitudo media Veneris	9	2	7	21
Aphelium Veneris	10	25	1	46
Nod ascendens Veneris	2	3	31	48
Longitudo media Mercurii	4	21	3	41
Apogæum Mercurij	8	14	22	14
Nodus ascendens Mercurij	1	13	51	0
Longitudo media Lunæ	11	5	45	50
Aphelion Lunæ	8	26	29	3
Nodus ascendens Lunæ	10	17	5	52

Felices animæ quibus hæc cognoscere primum
Inque domus superas scandere cura fuit:
Credibile est illos pariter vitiisque jocisque
Altius humanis exercuisse caput.

Blest souls, who first of all these motions knew,
And leaving earth, to heavenly mansions flew:
'Tis to be thought their sacred heads did higher
Than common vices and delights aspire.

Of the four Quarterly Revolutions.

ALthough a year be sometimes taken for the time of the Revolution of every Planet through the Zodiack, (yea and sometimes for the intire Revolution of the firmament of fixed stars, according to the same oblique Circle, which is called the *Great Year*) notwithstanding a year properly is that space of time, wherein the Sun (that great light of the world) by his periodical Revolution passeth through the 12 Zodiacal Constellations: But a year is sometimes divided into, first, the Astronomical and secondly, the civil year, of which we shal say nothing here.

The Astronomical year is either Tropical, or Sydereal. *Annus tropicus*, or the *tropical year*, is so called, because its bounded (*intervallo* [illegible] *& Equinoctiorum*, by that space of time wherein the Sun moves betwixt the Tropicks and Equinoctial points; and this year some others, for other reasons, have sometimes stiled *Annus temporalis*. *Annus Sydereus*, or the Sydereall year, is that space of time wherein the Sun perambulating through the whole Zodiack, arriveth at the same fixed star. The *tropical* and *sydereal* year are both of them either equal, or unequal: the equal tropical year is measured by the Suns equal motion, circumacted from the middle Equinox, and reducted to the same point, containing 365 days, 5 ho 49 min 16 sec. the unequal tropical year is the time of the suns apparent motion, reverted from the vernal Equinox to the same point again; and if you would know why this space of time is not at all times the same, but very unequal, you must consult the inequality of the porocession of the Equinox, and the irregularity of the suns prostapherisis or anomalys, and then you will see the reason of it. The equal Sydereal year is that wherein the sun departed from any fixed star perumblating through the whole Zodiack by his simple equal motion, is revolved to the

same star, containing 365 days, 6 ho. 9 min. 12 sec. the beginning of this year is constituted in the first star of *Aries*; and the *unequal Sydereal year* is that which differs from this space of time.

Thus much of a year in general; but the tropical year being that which brings about a four-fold change of Seasons, must be now particularly considered according to its division in four quarters, commonly called Spring, Summer, Autumn and Winter: of all which hear *Basilius*.

Vere simum tellus aperit floresq; ministrat,
Temporis Solis ager messis fert pinguis opimas,
Fœcundus Autumne Lacus de vitibus implet,
Vis Hyemis glacie currentes affligit undas.

And of the Spring first.

Æquinoctium vernum: the *vernal Æquinox*, or *spring quarter*, is the first part of the *tropical* year, described by the suns motion from the first point of *Aries* to his arrival at the *scorching tropick of Cancer*; a season which never comes unwelcome, it being the best friend to nature of all the other; the sun then drawing neerer unto our Zenith, and approaching to such fixed stars which are (*virtualiter & effective*) of a warmer nature refresheth the earth, temperates the air, and thereby makes the season very comfortable. Nay more,

Vere novo Latis decoremtur floribus arva.

So that whatever some *Etymologists* think that its called the Spring, a *vivendo*; others, a *veniendo*, that of *Isidorus* seems most rational; that its *ver a virendo*, for then *omnia virent*, the face of the earth is covered and bespread with greenness, and all things break forth into flourishing; for,

Titan *doth by his presence now revive*
Things sensible as well as vegetive.

Hence, because of the springing nature of this season some have called it *the childhood of the year*; as on the other

other side, *we call the childhood of man his spring time.* But before we come to tell you the time of its initation, we shall take notice of three things, first, its *temperament* and that is concluded by all to be temperately hot and moist, which appears to be very true upon these following Reasons and Considerations.

1 *Because this Season is most apt for generation of vegetables; for as its true in experience, that the generation of living creatures are most frequent in this part of the year, so its obvious to sence, that all vegetables, and such animals that are as it were dead in winter, do revive and assume a new life at this time, these things prove the truth of the reason, and for the consequence of it, that therefore the complexion of this season is hot and moist, its very cleer because these qualities are the principles of generation and the principal natural conservers of life, which consisteth not but in temperate heat and moisture:* and this is my first reason. 2 *Its temperament is hot and moist, because it is that season wherein most blood is generated, as is cleerly manifested by common experience, and witnessed unto by the practice of Physicians, who upon this account usually advise men to be let blood at this time:* so Fnehsius in his Commen. upon 9 Aphorism. 3. *and* Hypocrates *himself approves this also, affirming children to be most healthful in the spring for this very reason, because their warm and moist constitution answers to the temperature and complexion of the season: since therefore the humours in bodies do increase according to the qualities of the times and seasons it necessarily follows, that this quar in which the blood (whose nature is hot and moist) is increased, must needs be also of the same temperament: and though Galen seems to deny the complexion of the spring to be hot and moist yet our opinion will be easily reconcileable to his if we consider that heat and moisture may be either in excess, or in mediocrity: Now that the season is hot and moist in excesse, we deny as well as he, but that it is temperately*

perately and in a mediocrity hot and moist is the same with that of Galens *temperate nature, which he affirms to be the temperament of this quarter, for so he himself calls the blood hot and moist, which is the moist temperate humor of which the learned may read in* Joseph, Phavorin. Exercit. c. 14. *and more largely in* Baptistitus Montanus. 3 *we take notice, that diseases are very frequent in the spring time, because those humors which were collected and lay bid in the winter are excited and stirred up by the heat of the spring, and afford plenty of matter to breed diseases; for this healthful season doth not pierce, and of its own nature beget infirmities in the body; but the multitude of those evil humours that are collected in winter are the cause of it: and therefore such bodies as are free from such evil humours are most healthful now.*

But its worthy our notice, that the Ancients affirm, that those two parts of this quar. which they call *Adulta* which is April, and *Præcipis* which is May, are far more healthful in the moneth of March, which they called *pars nova*, by reason of the ayrs more cleer purgation from noysom vapours, and the exacter temperament of heat with cold in a greater mediocrity. However, Hypocrates tells us of this quar. in general, that its very healthy; for in sec. 3. Aphorism. he calls the Spring time, ὑγιεινότατον καὶ ἥκιστα θανατῶδες, the most healthful and least corrupted season: but however many mens bodies being before corrupted, they are often in this season infested with many diseases, which what they usually are, may be seen in the same Author, sect 3. Aph. 20. whither the learned are referred. And thus much by way of premise: the time of the quarters initiaton is when the Sun enters the 1. min. of *Aries*, which is called the vernal sign upon that account, and the Æquinoctial, because the sun then riding in his fiery Charet betwixt the artick and antartick Poles, æquates the dayes and nights; for these are both neither of them at this time

either

either longer or shorter then the other, but both do e-
qually contain 12 ho, the exact moment of this Revo-
lution is this present year

March { 10 day, 1 ho. 46 min. { *Tempus medium.* } *aft.*
{ 10 day, 1 ho. 41 min. { *Tempus apparens.* }

Of the summer quarter.

Solstitium Æstivum, the summer quar. is the second part of the Tropical year, commensurated by the Suns motion from the 1 min. of *Cancer*, to the beginning of *Lib.* which season is wont to be called *Juventus anni*, its name *Æstas* (as the Latines call it) is *ab Æstu*, that is, *a Calore*, from its exceeding heat; for as the Poet hath it somewhere, *Scindat agros Æstas Phœbeis ignibus ardens.* Others call it summer from I know not what Germane word signifying, *plus solis*, because we have then more Sun then at other times; for,

Phœbus doth now continue longer here,
Then he abides i'th' nether Hemisphere.

This season therefore must needs be of a hot and dry Constitution, Temperament, and Complexion, because continuance of action, doth necessarily add force of operation to all natural agents; and so the Suns great stay above our Horizon must needs augment the heat of this season, especially if we consider the rarity of the ayr this season, and the suns more vertial position over us, the quantity of those beams wherewith he now illustrates the earths superficies; and those rayes by reason of his proximity to our Zenith, approaching neerer to a perpendicularity, rendring him far more powerful and efficacious. This season is obnoxious to acute and cholerick diseases, by reason of the great heat generating much vehement choler: but what those more usual and particular distempers are, see in *Hyp. sec.* 3. *apb.* 21. This quarter initiates this year,

June 11. day, 4 ho. 47 min. { *Tempus medium.* } *aft.*
{ 12 day, 4 ho. 45 min. { *Tempus apparens* }

Of Autumn:

Autumnal Æquinoctial, the Harvest quarter, is that space of time, which is measured by the motion of the Sun through these signs, *Lib. Scor. Sagit.* and it's called Autumn (according to *Festus*) *ab augendo*, from increasing, because a plentiful crop in a fruitful harvest is the usual companion of this quar. unto which, *Cladium in raptu Proserpinæ* seems to have respect in these verses,

Hæc tibi sacra datur fortuna tuumq; tenebis,
Autumnum & fulvis semper ditabere pomis.

And we ought to be so thankful, as alwayes to remember, that when this season is to us the mother of plenty, it is then also the daughter of bounty: the time of its initiation is when the Sun entring into that Equinoctiall sign *Libra*.

——— *Lest time should fail,*
weighs out the dayes and nights in equal scale.

For then are the hours of his residence above our Horizon equal to the time of his continuance under it. As to its temperament, its cold and dry, by reason of the Suns gradual declining from our vertex: the Antients were wont to account its beginning at the rising of Arcturus, and its ending at the setting of the πλειαδες or seven stars. Of this season, the gallant *Hypocrates* tells us,

Εν φθινοπώρω ὀξύτατοι αν νοῦσοι καὶ θανα τω δεσταιτό επιπαν: that is, In Autumn happen almost the most acute diseases, and most corrupt: and the Reasons for this may be these:

1 Because by the force of heat (which is usually very great the quarter preceding) the powers of nature are much debilitated and weakned.

2 Because many fools eat too much fruit, with which this season usually abounds; and whereof many ill humors are procreated.

3 Because by the often changes of heat and cold, the

temper

temper of the season is very unequal, from which many evil humors are stirred up. Hence the Poet *Ovid*,

Cum modo frigoribus premimur modo solvimur æstæ,
Tempore non certo corpora languor habet.

4 Because by the heat of the precedent season, many vitious humors are as it were setled in the body.

5 Because by reason of the ambient cold which now both morning and evening increases, those vitious humours begin at length to strike into the inward parts of the body; but for the particular diseases men are subject to at this time, see *Hyp. sect.* 3. *aphor.* 21.

This Quarter begins

	h.	m.		
Septem. 12.	19	45	afternoon:	*tempus medium*
	19	46		*tempus apparens*

Of winter.

Hyems, or Winter, is the fourth part of the Tropical year, circumscribed by the Tropick of Capricorn, and the vernal equinox, containing that space of time, in which the Sun makes his progress, from the beginning of the one, to the first point of the other; and its called Hyems παρὰ τοῦ ὕω, to rain; its temperament is cold and moist. *Frigidus Hyberna & gravidus nive nubilus*, &c. For indeed during this season,

Phæbus *withdrawes his lustre, and his rayes*
He but obliquely on the earth displayes.

And if we consider beside, that the ayr's Crassitude is greater, and the quantity of Beams fewer, we shall see Reason enough why its colder this quarter then at other times. It initiates this year

	h.	m.		
Decem. 11.	07	15	aftern.	*tempus medium.*
	07	16		*tempus apparens.*

It is usual, diseases are recited by *Hyp. sect.* 3. *apho.* 23. A cold season it will be; and therefore the Poets counsell is good,---*Lignum super foco large reponite*; and therefore I leave you,

A

A Table of Suns setting for every other day in the year.

Da.	Janu.	Febru.	March.	April.	May.	June.
1	3 57	4 47	5 44	6 46	7 40	8 13
3	3 59	4 52	5 48	6 50	7 43	8 14
5	4 1	4 54	5 52	6 54	7 46	8 14
7	4 3	4 58	5 56	6 58	7 49	8 15
9	4 5	5 2	6 0	7 2	7 52	8 15
11	4 7	5 6	6 4	7 6	7 54	8 15
13	4 10	5 10	6 8	7 9	7 57	8 15
15	4 12	5 14	6 12	7 13	7 59	8 15
17	4 15	5 18	6 16	7 16	8 2	8 14
19	4 18	5 22	6 20	7 20	8 4	8 14
21	4 22	5 26	6 24	7 24	8 6	8 13
23	4 24	5 30	6 28	7 27	8 8	8 12
25	4 28	5 34	6 32	7 31	8 9	8 11
27	4 35	5 38	6 36	7 34	8 11	8 9
29	4 39	5 42	6 40	7 37	8 12	8 7

Da.	July	Auguſt.	Septem.	Octob.	Novem.	Dec.
1	8 4	7 20	6 20	5 22	4 24	3 48
3	8 2	7 16	6 18	5 18	4 21	3 47
5	8 0	7 13	6 14	5 14	4 17	3 45
7	7 58	7 9	6 10	5 10	4 15	3 45
9	7 56	7 6	6 6	5 6	4 12	3 45
11	7 54	6 2	6 2	5 2	4 9	3 45
13	7 52	6 59	5 58	4 59	4 6	3 45
15	7 48	6 55	5 54	4 50	4 3	3 46
17	7 44	6 52	5 50	4 51	4 1	3 46
19	7 42	6 48	5 46	4 47	3 58	3 48
21	7 38	6 44	5 42	4 43	3 56	3 49
23	7 36	6 40	5 38	4 39	3 54	3 51
25	7 34	6 36	5 34	4 35	3 52	3 53
27	7 31	6 32	5 30	4 31	3 50	3 55
29	7 26	6 28	5 26	4 28	3 49	3 57

The use of this Table *for the suns setting.*

Of the suns periodical motion we spake before; now it concerns us to speak of his diurnal motion; for this it is that distinguisheth the year into days, and a day is the time ascribed thereby, viz. *Diurnus motus solis.* Now the sun accomplisheth this motion, either onely in the Diurnal arch, or in the whole circle. Hence a day is either natural, or artificial. A day natural, called by the Greeks νυχθήμερον; that is, a night and a day, is that space of time wherein the sunne runs his whole diurnal circle, from the East by the West to the East again, and it alwayes contains 24 ho. by some authors called *dies civilis* But an artificial day is that part of time which is opposed to the night, and it is that space of time wherein the sun rising his diurnal arch, produceth a day. which is from his rising to his setting; both which, with the length of the day, may be by the precedent Table thus found. Enter the first column with the day of the month and in the other columns under the moneth proposed and you may have your desire; and if you look for the suns setting on any intermediate day see the increase or decrease of two days, and make subtraction of half the increase or decrease as occasion serves, and the time of sun setting will emerge; which time substracted from 12 hours, gives you the true time of sun rising: For,

So many min as the sun setteth after 8,7,6,5,4.3,
So many min. he riseth before 4,5,6,7,8,9.

The artificial day is equal or unequal with the night: and to know when it is equal, when unequal, you may double the ho and min. of sun setting, & it gives you the length of the day; and double the h. and m. of sun rising, you have the length of the night, either of which known you need not be told whether they are equal or not.

Of the Equation of Natural daves.

As the artificial, so the natural day is both equal and inequal. The equal are the mean days, consisting of one whole

Whole Revolution of the Æquator, and an additament of so much time as is answerable to the mean motion of the sun in one day, that is, 59 min. 8 secon. 19 thirds, 45 fourths.

The inequal are the true or apparent dayes, which consist of so much time as the Revolution of the Æquator is made in, with an additament of so much time as agrees to the true motion of the sun in one day.

The inequality therefore of these dayes ariseth from this inequal additament, and that for these two causes.

1. The inequality of the suns motion in the Ecliptick; for the sun being moved excentrically, it happens that in equal spaces of time he describes inequal arches in the Ecliptick, and therefore it must needs follow, that the ascensions of the Æquator, or additaments agreeing thereto must need be unequal also.

2. The obliquity of the Zodiack, which causeth an inequality or difference, both in a right and oblique Sphear, betwixt the right ascensions of the Æquator and Zodiack.

Hence the difference between an apparent, and a mean or equal day is called the Æquation of days, because by this Æquation the natural or mean dayes are converted into the true or apparent.

As a demonstration of the first Reason may be urged, that experience we have of the sun, who runs through the six Northern signs in 186 dayes, and about 6 hours, when he marches through the 6 Southern signes in less time, viz. 178 dayes, and 22 hours. But these things because they are not of common use, I forbear further to inlarge.

Of Eclipses Solar and Lunar.

An Eclipse is denominated from its subject, either Solar or Lunar; for if it be an obscuration of the Suns light

light, it is called Solar; and if a privation of light in the moon, its then called a Lunar Eclipse.

A solar eclipse is *obscuratio solis apparens* &c. An apparent obscuration of the sun, whereby his light is averted from our eys, caused by the moon interposing betwixt our sight and the sun.

This definition contains the whole nature of a solar eclipse; and to understand it, you must consider first, that it is called an apparent obscuration, because there cannot naturally happen an obscuration properly so called, which is a privation of light in the sun. 2. Its called an averſion of light, for the suns light is not obscured really, but only the vibration of it unto us is hindred by a dense body coming between. 3. *Its* caused by the interposition of the moon betwixt our sight and the sun; for the moon being a dense body, it happens that when she passeth betwixt our sight and the sun, according to a right or diametrical line, the suns resplendant face is hid from our sight, and so that fountain of light seems to be obscured. From these premises we infer these two Conclusions, first, That there cannot happen an eclipse of the sun, but at a new moon for then only is the moon conjoyned with the sun, and so the suns light can at no other time be averted from us. 2. This cannot happen but when the moon is diametrically (or very near it) interposed betwixt our sight and the sun; for unless the moons body be betwixt our sight and the sun (which happens not at every conjunction, because that conjunction may not be near the Nodes, commonly called the head and tail of the Dragon) the suns light cannot then be hid from us. Hence the reason is easily discovered, why at every new moon there is not an eclipse, viz. Because some conjunctions happen nearer, some further from these points: But the subsequent type discovers all plainly.

A Type of Solar Eclipses.

In this Diagram, A doth repreſent the Suns body. D denotes the moon, B, C, E, and F are the earth; So that it appears, that to him who inhabites that part of the earth where C ſtands, the whole body of the Sun is eclipſed, but to him whoſe habitation is where B ſtands, half the Suns body onely is hid from his ſight: and as for him who is ſcituate where E ſtands, there no part of the Suns body is hidden from him. Whence you may conceive, that no ſolar eclipſe can be univerſal.

The Rules to know when the ſun will be eclipſed are theſe two. Firſt if the middle motion of the moons latitude at the time of the middle conjunction of the luminaries be diſtant from the north Node, which is the Dragons tail, leſs then 20 deg. 40 m. or from the ſouth Node or Dragons head, leſs then 11 d. 22. m. there may be a ſolar eclipſe at that conjunction or new moon. The 2d. rule is this. If the apparent latitude of the moon at the time of the viſible conjunction of the ſun and moon be leſs then the ſum of the ſemidiameter of the luminaries, the ſun will be eclipſed; but if it be greater, there wil not be an eclipſe of the ſun at that time. Let none be ſo fooliſh hereafter, as to parallel any natural eclipſe of the ſun with that great eclipſe at the death of our Saviour; for that was ſupernatural, as appears, 1. becauſe it was at a full moon, Mar. 15. 2. it was univerſal, 3. it continued 3 hrs. all which prove it to be miraculous. Of

Of Lunar Eclipses.

A Lunar Eclipse is a privation of the Suns light in the Moon, caused by the diametrical interposition of the earth betwixt the sun and moon: from which definition observe, 1 In that a Lunar Eclipse is called privation, it is no other then a reall passion, whereby Light, the borrowed quality, is expelled from its subject the Moon; and a privation of that light, which is darkness, covers her face, diverse from that which happens in an Eclipse of the sun, where the subject is not deprived of light; but we of the sight of it: for though the native light of the sun cannot be expelled from him, but onely averted from us; yet the borrowed light of the Moon may by the interposition of an opacous body. 2 We observe, that this depriving the Moon of her borrowed light, happens onely by the interposition of the earth betwixt the sun and moon. From these premises, we also infer two conclusions.

1 That an Eclipse of the moon happens not *nisi in oppotione Solis & Lunæ*, but at an opposition of Sol and Luna; or more plainly at a full moon: because then onely the earth can be so interposed betwixt them.

2 That a Lunar Eclipse cannot happen *nisi aiemo: traliter inter Solam & Lunam terra interponitur*; but when the earth is diametrically interposed betwixt the sun and moon, which is not at every full moon. It's further to be observed, that this interposition of the earth is either exactly diametrical, which is, when a right line may be drawn by the Centers of the three bodies of the sun, moon, and earth, which begets a total eclipse: Or not exact, which is, when the diameter runs not through the Centers of these three bodies, yet not far from them, which begets for the most part a partial Eclipse, when some part of the moons body is illuminated by the Sun: But to understand all, behold the following Figures.

A Type of Lunar Eclipses.

In this Diagram you may observe what's my meaning in the precedent discourse of Lunar Eclipses; for here you have the suns body at the top, and the earth in the midst, with the moon, as she may be posited in three several plenilunes, that in the midst, shewing her position when her eclipse is total, the earth being then diametrically interposed between her and the sun: that on the left hand, presenting you with her sight at such a full moon when she suffers no eclipse at all: and the third on the right hand, demonstrating her position when the eclipse is but partial; and withall, take notice, that this difference ariseth principally from her greater or lesser latitude, or her proximity and remoteness from the ecliptick line at the time of the opposition, or full moon; for its very true, that *Stati atq; menstruinm sunt utrique defectes propter obliquitatem signiferi Lunaq;* &c. The Rules to know when an eclipse of the moon will happen are these, 1 If at the time of the mean opposition or full mo. her middle place be distant, either from the Dragons head, or Dragons tayl, less then 15 deg. 12 min. either according or contrary to the succession of signs, that full moon will be eclipsed. 2 If at the time of the true full m. her latitude be less then the sum of her semidiameter, & the earths shadow, that full moon will suffer an eclipse; but if it be greater, she cannot be eclipsed.

These things premised, we proceed to consider of Eclipses happening this present year, as followeth.

Of Eclipses this present year.

There will be two solar Eclipses this year; but the first of them wil be onely visible to us in England, and that so small an obscuration, that it will be scarce discernable, or at all conspicuous: however, such as it will be, it will be the first new moon this year, which is *Jan.* 27.

	h.	m.	ll.	
The beginning of it	0	49	54	afternoon
The visible conjunction	1	18	43	
The greatest obscuration	1	26	15	
The end	2	02	4	
The total duration	1	12	10	
The Digits eclipsed	0	53	38	

As it will be a small eclipse, so I believe it will be of so little concernment to us, that it would be but idle industry either to give a type of the eclipse, or a scheme of the positure of the heavens at the middle time thereof, and therefore I shall wave both.

The 2d. eclipse of the sun will be the 22 of July, it will not be conspicuous in any part of Europe, and some say Eclipses *nihil nocent iis quibus non videntur*; and therefore we may let it pass, as though we saw it not; for it will happen about 2 of the clock in the night, and will therefore be visible in the Southern parts of the world, to those whose Longitude is 176 deg. having about two degrees meridional latitude.

It seems that famous Author of the *primum mobile* Tables, made for the use of such as are convetsant in Genethliacal Computations, viz. *Andreas Argolus* hath mentioned two Lunar Eclipses to happen this year: the one on the 8 of July, and the second on the 6th of *August*: but because I am confident that no man living shall ever see them, I shal say no more.

A Table shewing the Age of the Moon.

Dayes of the moneth	Januar.	Febru.	March.	April.	May.	June.	July.	August	Septe.	Octob.	Nove.	Decem.
1	4	5	4	5	6	7	8	10	11	12	13	14
2	5	6	5	6	7	8	9	11	12	13	14	15
3	6	7	6	7	8	9	10	12	13	14	15	16
4	7	8	7	8	9	10	11	13	14	15	16	17
5	8	9	8	9	10	11	12	14	15	16	17	18
6	9	10	9	10	11	12	13	15	16	17	18	19
7	10	11	10	11	12	13	14	16	17	18	19	20
8	11	12	11	12	13	14	15	17	18	19	20	21
9	12	13	12	13	14	15	16	18	19	20	21	22
10	13	14	13	14	15	16	17	19	20	21	22	23
11	14	15	14	15	16	17	18	20	21	22	23	24
12	15	16	15	16	17	18	19	21	22	23	24	25
13	16	17	16	17	18	19	20	22	23	24	25	26
14	17	18	17	18	19	20	21	23	24	25	26	27
15	18	19	18	19	20	21	22	24	25	26	27	28
16	19	20	19	20	21	22	23	25	26	27	28	29
17	20	21	20	21	22	23	24	26	27	28	29	30
18	21	22	21	22	23	24	25	27	28	29	1	1
19	22	23	22	23	24	25	26	28	29	30	2	2
20	23	24	23	24	25	26	7	29	1	1	3	3
21	24	25	24	25	26	27	28	30	2	2	4	4
22	25	26	25	26	27	28	29	1	3	3	5	5
23	26	27	26	27	28	29	1	2	4	4	6	6
24	27	28	27	28	29	1	2	3	5	5	7	7
25	28	29	28	29	30	2	3	4	6	6	8	8
26	29	1	29	1	1	3	4	5	7	7	9	9
27	30	2	30	2	2	4	5	6	8	8	10	10
28	1	3	1	3	3	5	6	7	9	9	11	11
29	2		2	4	4	6	7	8	10	10	12	12
30	3		3	5	5	7	8	9	11	11	13	13
31	4		4		6		9	10		12		14

The use of this Table is very obvious: for entring the first column with the day of the moneth, and the name of the moneth in the head of the Table, the intersection of those lines will shew you the moons age for any day very exactly.

A Table *shewing the time of the Moons coming due south, with the quantity of her shining for the time of full Sea, and hour of the night.*

The Moons age for her shining.	The Moons shining.		The Moons age for her southing.	Her comin due South, g.	
Dayes.	H.	M.	Dayes.	H.	M.
1 29	0	48	1 16	0	48
2 28	1	36	2 17	1	36
3 27	2	24	3 18	2	24
4 26	3	12	4 19	3	12
5 25	4	00	5 20	4	00
6 24	5	48	6 21	5	48
7 23	6	36	7 22	6	36
8 22	6	24	8 23	6	24
9 21	7	12	9 24	7	12
10 20	8	00	10 25	8	00
11 19	8	48	11 26	8	48
12 18	9	36	12 27	9	36
13 17	10	24	13 28	10	24
14 16	11	12	14 29	11	12
15 15	12	00	15 30	12	00

To find the Moons shining.

1 you must find the Moons age in the Table, which when you have found, you may enter the first column of this Table, and right against the number of the dayes of her age, you may in the second column have your desire, if reason will satisfie you.

To find the Moons coming South.

Having, as before-mentioned, found the age of the Moon in the Diary, enter this Table with it in the 3d. Column; and if you cannot find the time of her culmination, or coming to South, in the 4. Column, then surely you are fast asleep. *Example.*

Jan. 30. the Moon is 3 days old; the 2d. column tells me she shines 2 ho. 24 min. and the 4th that she culminates at 24 m. past 2. afternoon.

To find the time of the Moons rising and setting.

The knowledge of the arising and setting of the Mo. depends upon the fore-knowledge of, first, the hour and min. of her shining; and secondly, the exact time of the Suns arising and setting. The i. of these, *viz.* the Moons shining, I have told you how to find it already, and for the time of the Suns rising and setting, if you please to look you may know that also.

Both these being known, if you add the time of the Moons setting to the time of the Suns rising (if the Moon be increasing in light) it gives you the time of the Moons arising. But if the Moon be decreasing in light, (which is always when she is 15 dayes old, untill the next new moon) then to find her arising, you must substract the time of her shining from the time of the suns arising, and the exact time of the Moons arising will emerge.

And to find the time of the Moons setting, you may (if you please) if the Moon increase, add the hour and min. of her shining, to the time of the Suns setting; and no question but the product will give you the time of her setting at that time.

But suppose the Moon decreases (for she is sometimes in the Wane) then you must substract the time of her shining from the hour and min. of the Suns seting, and the remainder will be the time of her setting. And be pleased to take notice, that if the time of the Moons shining be more then the time of the Suns setting, you must add 12 hours to the hours and minutes of the suns setting: otherwise, you cannot make substraction, neither in the finding out the time of Moones arising or setting when she decreases; but *verbum sat sapienti.*

A tide table for the places following.

	h.	m.
Quinb. Southampton, Portſmouth,	0	0
Rocheſter, Malden, Aberdeen Redban,	0	45
Graveſend, Tenet, Romney, Ramkins,	1	30
London, Tinmouth, Hartlepool, Amſterdam,	3	0
Barw. Oſtend, Scarborow, Flufhing,	3	45
Erith, Leith, Dunbar, Narbon, Scilly,	4	30
Newcaſtle, Falmouth, Humber, Foy,	5	15
Lin, Antwerp, Plimouth, Hull,	6	0
Briſtol, Lanion, Foulneſs at the Start.	6	45
Milford, Bridg-wat. North-coaſt,	7	30
Portland, Peterport, Harflew, Nague,	8	15
Dover, Yarmouth, Harwich, Dublin,	10	30
Callis, Rye, Winchelſey, Caſhut,	11	15

The uſe by Example.

April 13. the Moon ſhe comes to the South at 36 min: paſt 1. a clock, for then ſhe is 17 days old: Now to the finding out the time of full Sea in any of the fore mentioned places, I add the ho. and min. of the Moons Southing to thoſe numbers that ſtand againſt the name of the place, and the product is the time of full Sea.

To find the hour of night by the Moon.

Having by the former directions found the time of the Moons coming South, you may repair to a Sun-Dyall, and there obſerve how many hours and min. the ſhaddow wanteth of the line of 12, and then ſubſtract thoſe hours and minutes from the time of the Moons coming South, and the remainder is the time of the night: but if the ſhadow be paſt the line of 12, then add thoſe houres and minutes to the time of the Moons Southing, and the product gives you the hour of the night.

Of the artificial day; and how to find the length thereof, with the time of the Suns rising and setting for the Latitude of 52 degrees.

Locus Solis.	Latit. 52 g.	Locus Solis.
♈ ♎	6 6	♎ ♈
3	6 12	27
6	6 18	24
9	6 24	21
12	6 31	18
15	6 37	15
18	6 41	12
21	6 43	9
24	6 49	6
27	6 55	3
♉ ♍	7 0	♏ ♓
3	7 1	27
6	7 7	24
9	7 12	21
12	7 17	18
15	7 22	15
18	7 28	12
21	7 34	9
24	7 38	6
27	7 43	3
♊ ♐	7 48	♑ ♒
3	7 54	27
6	8 0	24
9	8 4	21
12	8 7	18
15	8 9	15
18	8 11	12
21	8 13	9
24	8 14	6
27	8 15	3
♋ ♑	8 15	♐ ♋

An artificial day is an arch of a day natural or a civil; and as this contains alwayes 24 houres, so that the space of time betwixt the Suns rising and setting, which though equal at the Equinoctiall with the night; yet at other times experience informs us the sunnes long continuance above our Horizon, as in summer and his short stay in our Hemisphere; as in Winter causeth very much inequality in our artificial day: now the equal artificial day is alwayes 12 ho. which is when the sun is in Aries in March or in Libra in September: but the Sun being out of the Equinoctial line, the artificial day is unequal, and alwayes either lesse or more then 12 hours, according to the diversity of the Suns arch and parallel, occasioned by his neerer and farther accesse or recesse to or from the aforesaid Equinoctial line.

Now that this inequality of days may be found by this Table, you must take notice that the middle Column containeth the semidiurnal arch, the Sun being in any of these signs, Aries, Taurus, Gemini, Cancer, Leo, Virgo, and the seminocturnal arch when the Sun is in either Libra, Scorpio, Sagitarius, Capricorn, Aquarius, Pisces: thus much premised, proceed thus:

To

To find the semid. semin. arch: suns rising and setting.

First look into the diary, and having there found the suns true place in the 5. Column, repair to this table; & having with the Sign and degree wherein the Sunne is found to be entred this Table in the first Column thereof, you shall in the 2d. Column have the semidiurnall arch, if it be a Northern; and the seminocturnal arch, if it be a Southern Sign wherein the Sun is.

Now the Northern Signes are,

♈ ♉ ♊ ♋ ♌ ♍

And the Southern Signes are

♎ ♏ ♐ ♑ ♒ ♓

Again, If you have occasion to enter the Table in the 3 column, when the Sun is in any of the signs there set down, right against that sign and degree wherein the Sun is found to be; you may in the 2 column find as aboveſaid: and if having thus found the semidiurnal arch, you double the number when the Sun is in a Northern sign, the product is the length of the day, which subſtracted from 24 hours is the length of the night: and so the Sun being in a Southern, if you double the semidiurnal arch, it gives you the length of the night; which subſtracted from 24 hours gives you the length of the day, and biſected shews the exact time of sun letting.

Example.

Jan. 21. the Sun then being in 12 of ♒, I desire to know the length of the night, I enter this Table in the third Column, and right against 12 of ♒, I find 7,28, which is (the Sun being in a Southern Sign) the Seminocturnal arch: and this number doubled, makes 14 ho. 56 min. which is the true length of the night; which subſtracted from 24 ho. the remainder will be 9 ho. 4 m. the length of the day at that time, and this biſected gives me 7 ho. 28 min. for the time of Sun riſing; but if the length

length of the day 9 ho. 4 min. be biſected, it gives me 4 ho. 32 min. for the time of Sun-ſetting, you may do ſo in all other examples.

An Almanack for 11 *Years, beginning* Anno 1655. *ſhewing the Dominical Letter, Prime, Epact, and other moveable Feaſts.*

The year of our Lord	Dom. letter	Prime.	Epact.	Shrove-ſunday.	Eaſter day.	Rogation ſunday.	Aſcention day.	Whitſund.	Aventus Domini.
1655	G	3	3	Fe. 25	Ap. 15	Ma. 20	M. 24	Jun. 3	De. 2
1656	F E	4	14	17	6	11	15	M. 25	N. 30
1657	D	5	25	8	Ma. 29	3	7	17	29
1658	C	6	6	21	Apr. 11	16	20	30	28
1659	B	7	17	13	3	8	12	22	27
1660	A G	8	28	Mar. 4	22	27	31	Ju. 10	De. 2
1661	F	9	9	Fe. 24	14	19	23	2	1
1662	E	10	20	9	Ma. 30	4	8	M. 18	N. 30
1663	D	11	1	Mar. 1	Ap. 19	24	28	Jun. 7	29
1664	C B	12	12	Fe. 21	10	15	16	M. 29	27
1665	A	13	23	5	Ma. 26	Ap. 30	4	14	De. 3

The uſe.

Having found the Year of our Lord, in which you deſire to know the time of any of the vulgar Notes, or moveable Feaſts, in the firſt column, you may in the other columns, under their ſeveral heads, find your deſire.

Example.

In the year 1655, the Dominical Letter is G, Prime 3, Epact 3, Shroveſunday Febr. 25, Eaſter day Apr. 15, Rogation May 20, and Aſcention May 24, Whitſunday June 3, Advent December 2, and ſo for any other year propoſed.

Thus may ye antedate the backward Year,
And make the time before it comes appear.

FINIS.